



July 1, 2016

Mr. Matthew I. Shuman, P.E., Town Engineer
Town of Watertown Department of Public Works
124 Orchard Street
Watertown, MA 02472

Reference: Athena Arsenal, LLC - Arsenal on the Charles AODD Master Plan Special Permit Application
Peer Review of Transportation Impact Assessment, AODD Campus Plan Application, and
Transportation Improvement Program

Dear Mr. Shuman:

On behalf of the Town of Watertown, we have reviewed the above referenced Traffic Impact Assessment ("TIA") and related documents prepared by Vanasse & Associates, Inc. (VAI) and proposed site plan prepared by Stantec Consulting, Inc. (Stantec) for the proposed The Arsenal on the Charles (TAOTC) Master Plan by Athena Arsenal, LLC. Specifically, the following documents were reviewed:

- Arsenal on the Charles Amended Transportation Impact Assessment Draft Scope of Work, February 18, 2016, VAI
- Transportation Impact Assessment, December 2015 (amended April 2016 and May 2016), VAI
- AODD Campus Plan Application, TAOTC, February 8, 2016, Stantec
- AODD Campus Plan Application, TAOTC, May 6, 2016, Stantec
- TAOTC – AODD Master Plan Special Permit Application – Internal Circulation Revisions DRAFT, May 20, 2016, Stantec
- TAOTC – AODD Master Plan Special Permit Application – Off-Site Improvements DRAFT, May 20, 2016, Stantec
- Transportation Demand Management Program, May 2016 (as amended through June 6, 2016), VAI
- Revised Synchro analysis, June 7, 2016, VAI
- Revised Site Plan and Circulation, June 22, 2016, Stantec
- Transportation Improvement Program, June 27, 2016, VAI

Our review focused on the adequacy of the study and site plan with regard industry best practices for analyzing traffic operations, estimating project generated trips and related potential impacts, and providing safe and efficient site circulation. In addition, the proposed off-site mitigation measures were reviewed in detail to ensure their effectiveness in accommodating projected future traffic volumes with the development in place while also fitting with the long term needs and goals of the Town.

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Introduction

As indicated in the Traffic Impact Assessment, the Arsenal on the Charles (TAOTC) presently consists of the following uses:

- 671,708± square feet of corporate office space;
- The Arsenal Center for the Arts (ACA) – two theaters totaling 484 seats;
- A 57,962± square foot health club;
- A 27,397± square foot day care center; and
- 10,966± square feet of restaurant space.

In addition, a seasonal farmers' market operates on the site, and a food truck is in operation between 11:00 a.m. and 2:00 p.m.

Under the proposed Master Plan, the campus would be expanded as follows:

- 284,172 additional square feet of corporate office space (total 955,880± square feet);
- 40,925 additional square feet of retail and restaurant space (total 51,891± square feet);
- Two additional food trucks (total 3); and
- 37,650 square feet of covered open space.

Parking on site will be increased to 3,167 spaces, including construction of a new 1,623-space parking garage on an existing surface parking area at the northwest corner of the project site. The proposed project is estimated to generate an additional 4,410 vehicle trips on an average weekday, including 361 trips (317 entering, 44 exiting) during the morning peak hour and 456 trips (109 entering and 347 exiting) during the evening peak hour; and an additional 3,924 vehicle trips on an average Saturday, including 416 trips (222 entering and 194 exiting) during the midday peak hour.

Study Area

The study area in the Amended TIAS includes 31 intersections (20 signalized, 11 unsignalized) primarily along the Arsenal Street, North Beacon Street, and School Street corridors. In addition, the signalized intersections at Watertown Square, Galen Street at Watertown Street at Nonantum Road, Main Street at Pleasant Street, and Main Street at Church Street were analyzed to assess the impacts of the project on the Watertown Square signal system. The intersections analyzed in the TIAS conform to the study area established by DPW in collaboration with VAI and WorldTech at a meeting on March 10, 2016.

Future Conditions – Specific Development by Others

The proposed redevelopment of the Arsenal Mall by Boylston Properties will have an impact on the study area for TAOTC, including all site access points. Recognizing that the Arsenal Mall project is in its early stages, these impacts do not need to be evaluated immediately; however, traffic operations including the volumes generated by the Arsenal Mall project must be considered prior to design and implementation of off-site mitigation measures.

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Project-Generated Traffic

The assumptions used to estimate traffic volumes generated by the proposed TAOTC campus expansion follow ITE standards and industry best practices.

Trip Distribution and Assignment

The trip distribution in the TIA was reviewed for consistency with the list of residence zip codes for athenahealth employees provided on June 3, 2016 and reasonably reflects probable routes to and from the campus. Additionally, the proposed driveway usage reasonably reflects the circulation, placement of uses, and locations of parking within the campus, assuming that access is allowed between the west parking garage and the North Beacon Street at School Street and Charles River Road access point.

Traffic Operations Analysis

Comments on the Synchro analysis in the TIA were transmitted to VAI on May 31, 2016. These comments have been resolved with revised analyses received from VAI on June 7, 2016. There are no further comments on existing conditions analyses.

It should be noted that very large delays reported at unsignalized intersections in the study area – up to 4,472.9 seconds (approximately an hour and a quarter) – are theoretical in nature and do not reflect actual field conditions. These delays are typically due to existing cut-through traffic along the minor STOP-controlled approaches, and any increases in delay would likely be offset by reductions in cut-through traffic. In the future with the proposed project, operations are likely to remain unchanged from existing conditions.

Site Circulation

The site circulation plan has been through several iterations during the review process to incorporate changes recommended by DPW and DCDP. Comments relating to the Internal Circulation Revisions dated June 22, 2016 are as follows:

- The west (existing) parking garage was initially proposed to have only one egress, onto the Kingsbury Avenue shared street and out to Arsenal Street via Talcott Avenue. This has since been revised to add an exit from the north side of the garage onto the Wooley Avenue shared street, allowing vehicles to exit to North Beacon Street via the Wooley Avenue and School Street shared streets.
- Restricting Wooley Avenue along the north side of Building 313 to emergency, service, and loading vehicles only as previously proposed would restrict parking for the Arsenal Center for the Arts, particularly for handicapped access. This has been revised in the June 22 submission to allow parking for the ACA along this segment of Wooley Avenue. However, the roadway dead-ends west of Building 313, leaving a difficult turnaround for those parked along this segment.
- The proposed angle spaces for valet and drop off at the northwest corner of Building 312 creates backing conflicts with vehicular and bicycle traffic on Kingsbury Avenue. Back-in angle parking may be more appropriate given the mix of users on the Kingsbury Avenue shared street.

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- The Watertown Community Path extension east to Arsenal Park is proposed to detour through the site via the Wooley Avenue and Kingsbury Avenue shared streets. This results in the path sharing space with motor vehicles through the entire campus. Proper guide signs should be provided to help cyclists find their way through the campus, as well as appropriate warning signs to alert drivers that they are sharing space with a through bicycle route. The Kingsbury Avenue segment is especially of concern, as it is also the main vehicular access to the east garage and the retail portion of the site. It is also unclear how westbound bicycles will travel through the site, as the segment of Kingsbury Avenue between the east garage and Building 312 is one-way. A dedicated bicycle or shared pedestrian/bicycle path would be more appropriate as the designated Community Path, although it is understood that site constraints make this difficult.

Proposed Off-Site Mitigation

The proposed mitigation package outlined in the Transportation Improvement Program memorandum dated June 27, 2016 is the culmination of a lengthy collaboration between athenahealth, DPW, and DCDP and represents a significant investment in the Town of Watertown's transportation infrastructure. The improvements proposed not only mitigate the Arsenal on the Charles development's fair share of impacts to the Arsenal Street corridor, they will also result in improved traffic operations, better accommodations for pedestrians and cyclists, and are consistent with the Town's continued efforts in implementing Complete Streets principles in its transportation network.

The June 27, 2016 Transportation Improvement Program memorandum indicates that the proposed traffic signal at Arsenal Street and Wooley Avenue will incorporate the Lexus of Watertown driveway on the north side of Arsenal Street, opposite the proposed garage and approximately 60 feet west of the intersection of Wooley Avenue (the proposed garage entrance) and Arsenal Street. This intersection was analyzed as a "T" intersection in both the Traffic Impact Study and revised Synchro analysis, not incorporating the driveway. Due to the intersection offset, incorporating the driveway will require split phasing, potentially resulting in increased delay on Arsenal Street. If this is the intent, the Applicant should conduct traffic counts at the Lexus of Watertown driveway, provide a sketch of the proposed intersection configuration, and analyze the intersection as proposed. However, VAI clarified via e-mail on June 30 that the Lexus driveway would likely not be incorporated into the signal.

If you have any questions or require additional information, please feel free to contact me directly at any time.

Sincerely,

WORLDTECH ENGINEERING, LLC



Michael Pompili
Project Engineer